

Remarks

The Examiner rejected claims 1-32 under 35 USC 112 as being indefinite because the Examiner states the claimed electrodes and substrate are not shown in figure 3. Applicants amended the Brief Description of the Drawings to more clearly describe the figures and respectfully submit that the description of figure 3 is no longer indefinite and further that the rejections under 35 USC 112 should be withdrawn.

The Examiner rejected claims 23 and 25-32 under 35 USC 103 over U.S. Patent 5,593,552 to Joshi in view of U.S. Patent 5,972,196 to Murphy. Applicants submit that neither Joshi nor discloses, teaches, or suggests a coating deposited on an electrolytic material for regulating an amount of gas generated.

Applicants' invention requires, among other elements, includes a coating deposited on a surface of an electrolytic material for regulating an amount of gas generated. As described in the background and detailed description of Applicants' application, uncontrolled bubble, or gas, formation from the electrode may negatively affect sensor sensitivity. The coating inhibits the flow of solution from the reservoir to the electrolytic material, which in turn hydrates the electrode, and where reducing the flow of solution may reduce bubble, or gas, formation. Therefore, the coating acts as a barrier between the reservoir and electrolytic material for reducing flooding by controlling the amount of solution in contact with the electrolytic material.

The office action states in paragraph 4 that Joshi does not recite a coating. Murphy relates to method for producing ozone and hydrogen peroxide for killing micro-organisms, Murphy does not relate to an electrochemical gas sensor. Applicants submit that Murphy does not disclose, teach, or suggest a coating for regulating the amount of gas generated because Murphy would not consider regulating gas generation because

gas generation or reducing gas generation is not pertinent to the problem seeking to be solved, namely killing microorganisms. In fact, gas generation or reducing gas generation is not mentioned anywhere in Murphy. Therefore, there is no teaching or suggestion in Murphy, which relates to an invention for killing microorganisms, to be combined with Joshi, an invention for gas generation. There is also no teaching or suggestion in Murphy to be combined with Joshi and further modified to provide a coating that regulates the amount of gas generated.

In order for a combination of references to be proper under 35 USC 103, there must be some teaching or suggestion to make the suggested combination. There is no teaching in Murphy to be combined with an invention for gas generation and there is no teaching or suggestion in Joshi to be combined with an invention for killing microorganisms. Because Murphy and Joshi are in completely different arts, one skilled in the art of gas generation would not consider a combination with a reference from the art of killing microorganisms and, vice versa, one skilled in the art of killing microorganisms would not consider a combination with a reference from the art of gas generation. To make such a combination of references from different fields would be improper absent some teaching or suggestion to make the combination. As stated above, there is no such teaching or suggestion in either of the references.

Even if such a combination was made between Joshi and Murphy, one skilled in the art would not arrive at Applicants' invention. The resulting combination would be a gas generator having a catalyst layer 14, which accelerates reactions between the other elements of the invention, such as the gas, solid electrolyte 12, and electrode 18 of Murphy. That is why catalyst layer 14 is defined to be an oxygen reduction electrocatalyst layer (col. 14, lines 1-5), where oxidation and reduction are known in the art to increase gas generation and where catalyst is defined (see attached definition from Webster's Unabridged 2002) to be an "acceleration of a reaction...an action or reaction be-

tween two or more persons or forces provoked or precipitated by a separate agent or force." In fact, Murphy teaches away from Applicants' claimed invention by increasing gas generation whereas Applicants' coating reduces flooding, which in turn reduces gas generation.

Therefore, one skilled in the art would not only need to combine Murphy with Joshi, but must also modify Murphy to include a coating for regulating gas generation, which is opposite to the teachings of Murphy. Such differences between Applicants' invention and Murphy can hardly be argued to be inconsequential. Therefore, Applicants respectfully submit that the rejections with respect to the Joshi and Murphy be withdrawn.

Based on the above remarks, Applicants further submit that all claims are in condition for allowance.

Respectfully submitted,



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